

Remarks

Reconsideration of this application as amended is respectfully requested.

Claims 9 and 19 stand rejected under 35 U.S.C. §112, second paragraph.

Claims 1-20 stand rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 6,366,166 of Belot ("Belot").

The examiner has object to the drawings and has stated that the "second transformer" must be shown in the drawings. Applicant submits that the "second transformer" referred to by the examiner is that recited in original claims 9 and 19. Amended claims 9 and 19 recite a "second pair of mutually coupled inductors." Applicant submits that the second pair of mutually coupled inductors recited in amended claims 9 and 19 are shown in the transformer T1 in Figure 1 of applicant's drawings because Figure 2 of applicant's drawings shows a differential amplifier having a transformer T2 and a pair of inductors L3 and L4 and applicant's specification states that

the inductor components L3 and L4 may be replaced with a transformer, such as the transformer T1 in Figure 1, to yield further circuit space savings and improved common mode rejection.

(Applicant's specification, page 6, lines 14-19)

(emphasis added) and because applicant's specification on page 4, line 15 states that the transformer T1 in applicant's Figure 1 provides a pair of mutually coupled inductors. It is therefore respectfully submitted that the feature of a "second pair of mutually coupled inductors" recited in amended claims 9 and 19 is shown in the drawings.

The examiner has rejected claims 9 and 19 under 35 U.S.C. §112, second paragraph, as being indefinite. The

examiner has stated that

It is not clear which transformer called
"second transformer".
(Office Action mailed 12-13-04, Page 3, line 6).

Applicant submits that the second pair of mutually coupled inductors in amended claims 9 and 19 is clearly recited in unambiguous terms. If the examiner is stating that it is not clear which transformer shown in applicant's drawings is the second pair of mutually coupled inductors recited in amended claims 9 and 19 then applicant respectfully draws the examiner's attention to the remarks set forth above that pertain to the examiner's objection to the drawings.

Applicant submits that amended claim 1 is not anticipated by *Belot* because *Belot* does not disclose a differential amplifier having a pair of transistors and a pair of mutually coupled inductors that are arranged to bias the transistors as claimed in amended claim 1. Instead, Figure 4 of *Belot* shows a differential amplifier having a set of discrete inductors 32-33, 34, and 36 and Figure 7 of *Belot* shows a differential amplifier having a set of discrete inductors 32'-33', L1, L1', L2, and L2'. The only mutually coupled inductors in *Belot* are in the transformer 22 shown in Figure 3 of *Belot*. The transformer 22 of *Belot* does not bias the transistors of a differential amplifier as claimed in amended claim 1. Instead, the transformer 22 of *Belot* has a primary winding 21 connected to an antenna 20 and a secondary winding 23 that connects to the inputs of a pair of amplifiers 2 and 3. (*Belot*, col. 2, line 60 through col. 3, line 1).

The Examiner has stated that the inductors 32-33, 34, and 36 in Figure 4 of *Belot* can be read as a transformer. (Office Action mailed 12-13-04, page 3, lines 17-18). Applicant respectfully submits that a pair

of inductors do not anticipate a pair of mutually coupled inductors as claimed in amended claim 1. Applicant submits that an inductor is a structure having a single winding whereas a pair of mutually coupled inductors, e.g. a transformer, includes a pair of windings that provide mutual inductance. For example, compare the discrete inductors 32-33, 34, and 36 in Figure 4 of *Belot*, each of which has a single winding, to the transformer 22 of *Belot* having a primary winding 21 and a secondary winding 23.

It is therefore respectfully submitted that the differential amplifier of amended claim 1 having a pair of transistors and a pair of mutually coupled inductors that are arranged to bias the transistors is not anticipated by the discrete inductors of *Belot* that do not provide mutually coupled inductors.

Given that claims 2-10 depend from amended claim 1, it is submitted that claims 2-10 are not anticipated by *Belot*.

It is also submitted that amended claim 11 is not anticipated by *Belot*. Amended claim 11 is a method for providing a differential amplifier that includes limitations similar to the limitations of amended claim 1 including coupling a pair of mutually coupled inductors to bias a pair of transistors of the differential amplifier. Therefore the remarks stated above with respect to amended claim 1 also apply to amended claim 11.

Given that claims 12-20 depend from amended claim 11, it is submitted that claims 12-20 are not anticipated by *Belot*.

It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable objections and rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-1078 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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By: Paul, VA

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